UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,814	09/15/2003	Shougo Shimizu	58799-095	7392

7590 01/30/2007

MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER	
CHAI, LONGBIT	
ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/661,814	SHIMIZU ET AL.	
	Examiner	Art Unit	
	Longbit Chai	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/15/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for benefit of foreign priority under 35 U.S.C. 119 (a) – (d) is acknowledged.

The application is filed on 9/15/2003 but has a foreign priority application filed on 2/25/2003.

Preliminary Amendment

2. Examiner acknowledges Preliminary Amendment for the claims filed 1/26/2004. The submitted amendments have been entered and made of record. Presently, pending claims are 1 – 6.

Claim Objections

3. Claim 1 is objected to because of the following informalities: "from each of web services to be used" is suggested to emphasize "from each of a plurality of web services to be used" and should further include the purpose related to the web services when it is used Appropriate correction is required.

4. Claim 4 is objected to because of the claim language "a correspondence between an identifier ..." lacks the connection with the other part of "and" – i.e. a clear language of "a correspondence between A and B". Appropriate correction is required.

5. Claims 3, 5 and 6 are objected to because of the claim language "the result of execution is sent" without further reciting where to be sent. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. System claim 1 is rejected under 35 U.S.C. 101, which are directed to a non-statutory subject matter because, although the claim preamble is identified as a "system claim", the claim limitations are merely directed to descriptive materials (i.e. abstract idea) such as acquiring a protocol, acquiring a schema, analyzing protocol, and outputting a procedure and as such the claims are non-statutory as not being tangible.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". Rubber-Tip Pencil Co. V. Howard, 20 wall. 498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basis tolls of scientific and technological work Gottschalk V. Benson, 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter Parker V. Flook, 197 USPQ 193, 201 (S St 1994). A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re

Wamerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1754, 1795 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1495.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Although the claim preamble is identified as a "system claim", the claim limitations are merely directed to descriptive materials (i.e. abstract idea) such as acquiring a protocol, acquiring a schema, analyzing protocol, and outputting a procedure and as such the hardware specific elements for system claim are omitted and should be identified from the claim.

8. Claims 2 – 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention because Examiner notes the exact process of "how to" automatically generate a program for performing digital signature and encryption to XML in accordance with the procedure is not clearly and specifically disclosed in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C Candidate Recommendation 19-April-2001 (hereafter referred as W3C-2001), in view of Chigira et al. (JP-401191233A).

As per claim 1, W3C-2001 teaches a system of generating procedure for digital signature and encryption to an XML document, comprising:

a unit for acquiring a protocol describing procedures for digital signature and encryption to XML from each of web services to be used (W3C-2001: Sec. 2.0 / 4th Para and Sec. 3.1.1 & 3.1.2: the protocol is the URI that relates the data objects and signatures – this also appears in the SPEC (PG-PUB: Para [0039]);

a unit for acquiring a schema of an element to be a target of digital signature and encryption to XML from the protocol (W3C: Sec. 4.0 and Sec. 3.1.1 & 3.1.2: definition of data object as a data structure is interpreted as one type of schema).

a unit for analyzing the acquired protocol and schema and outputting a digital signature and encryption to XML that meets requirements of the protocol and schema

(W3C-2001: Sec. 3.0). However, W3C-2001 does not disclose expressly a unit for analyzing the acquired protocol and schema and outputting a proper procedure for digital signature and encryption to XML that meets requirements of the protocol and schema.

Chigira teaches automatically outputting a program based upon the registered data of a complicated structure and the procedure (i.e. protocol) related to each of data object information (Chigira : Section of Constitution).

Therefore, W3C-2001 in view of Chigira teaches:

a unit for analyzing the acquired protocol and schema and outputting a proper procedure for digital signature and encryption to XML that meets requirements of the protocol and schema (W3C: Sec. 2.0, Sec. 2.3, Sec. 3.0, Sec. 4.0 and Sec. 3.1.1 & 3.1.2) & (Chigira : Section of Constitution: a program should inherently represent and include the procedure to generate a target signature of interest).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Chigira within the system of W3C-2001 because (a) W3C-2001 teaches providing processing rules and data objects for digital signature generation and validation (W3C-2001 : Sec. 3.0 & Sec.3.1.1) and (b) Chigira teaches providing a program automatic generating system based upon the registered data of a complicated structure and the procedures (i.e. protocols, or rules) related to each of data object information (Chigira : Section of title, purpose and constitution).

As per claim 2, W3C-2001 as modified teaches a program for performing digital signature and encryption to XML in accordance with the procedure for digital signature and encryption to XML is automatically generated (W3C: Sec. 2.0, Sec. 2.3, Sec. 3.0, Sec. 4.0 and Sec. 3.1.1 & 3.1.2) & (Chigira : Section of title, purpose and constitution).

As per claim 3, W3C-2001 as modified teaches when sending a message in a web service, the generated program for digital signature and encryption to XML is executed for the message and the result of the execution is sent (W3C: Sec. 2.1, [S05-11]) & (Chigira : Section of title, purpose and constitution).

As per claim 4, W3C-2001 as modified teaches when generating the program for digital signature and encryption to XML, a correspondence between an identifier of an XML schema for an XML element to which digital signature and encryption to XML are to be performed, an identifier of a list of the protocols for digital signature and encryption to XML, and the program for digital signature and encryption to XML is stored into a storage device (W3C: Sec. 2.0, 4th Para: the program must be stored first in order to be executed for automatically generating the signature) & (Chigira : Section of title, purpose and constitution).

As per claim 5, W3C-2001 as modified teaches wherein when sending an XML document, an XML signature and an encryption module are decided from the identifier of the XML schema and the identifier of the list of the protocols for digital signature and

encryption to XML with reference to the correspondence, then the program for digital signature and encryption to XML is executed with respect to the XML document, and the result of the execution is sent (W3C: Sec. 1.0, Sec. 2.0 / 4th Para, Sec. 2.3, Sec. 3.0 and Sec. 3.1.1 & 3.1.2) & (Chigira : Section of title, purpose and constitution).

As per claim 6, W3C-2001 as modified teaches when sending an XML document, a protocol for digital signature and encryption to XML is acquired according to an identifier of a web service described in the XML document, then a program for digital signature and encryption to XML is generated from the protocol for digital signature and encryption to XML, the program for digital signature and encryption to XML is executed with respect to the XML document, and the result of the execution is sent (W3C-2001: Sec. 2.0 / 4th Para, Sec. 2.3, Sec. 3.0 and Sec. 3.1.1 & 3.1.2: the protocol is the URI that relates the data objects and signatures – this also appears in the SPEC (PG-PUB: Para [0039]) & (Chigira : Section of title, purpose and constitution).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Longbit Chai
Examiner
Art Unit 2131

LBC

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100